

## **ABSTRACT**

**RESEARCH PAPER:** Effects of an Incremental Health Systems Approach to the Management of Neonatal Hyperbilirubinemia.

**STUDENT:** Elizabeth Anne Mysliwec

**DEGREE:** Master of Science

**COLLEGE:** College of Applied Sciences and Technology

**DATE:** December, 2013

**PAGES:** 39

Neonatal hyperbilirubinemia is a common occurrence yet it is often dismissed due to failure of clinicians to recognize the significance of jaundice. To better guide outpatient diagnosis and treatment of neonatal hyperbilirubinemia, healthcare providers should consider a systems approach to provide standardized, guidelines in initiating identification, treatment and follow-up for newborns. The purpose of this study is to evaluate the effect of pre-discharge and guided follow-up transcutaneous bilirubin measurement in the neonate to determine the effects on management of neonatal hyperbilirubinemia and prevention of kernicterus. This is a replication of the first part of the 2006 study by Bhutani, Johnson, Schwoebel, and Gennaro. The sample will include 1,800 infants for pre-implementation data who have been discharged from the “well-baby” nursery at a northeast Indiana hospital. The test group will include infants born in a two year period after implementation. The intervention will be routine transcutaneous bilirubin measurement to diagnose clinical jaundice, along with routine serum bilirubin testing pre-discharge, and use hour specific, percentile based bilirubin nomogram. Findings will provide information for clinicians in the application of evidence based practices that incorporate a systems approach to prevent complications of neonatal hyperbilirubinemia.